

08CN07467-1

IN THE CLAIMS:

1. (Currently amended) A conductive thermoplastic composition comprising:

about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether copolymer;

about 30 to about 65 weight percent of a polyamide, based on the total weight of the composition comprising nylon 6 and nylon 6,6;

about 1 to about 30 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer, and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition; and

about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition

wherein the composition is free of an alkylene-alkyl meth(acrylate) copolymer and an ethylene-alpha-olefin copolymer prepared using a single site catalyst that is at least partially modified with at least one alpha, beta-unsaturated dicarboxylic acid or derivative thereof. all weight percents are based on the total weight of the composition.

2. (Original) The composition of Claim 1, wherein the polyphenylene ether copolymer has an intrinsic viscosity of about 0.20 to about 2.0 dL/g as measured in chloroform at 25°C.

3. (Canceled)

4. (Canceled)

08CN07467-1

5. (Previously presented) The composition of Claim 1, wherein the polyamide comprises about 3 to about 17 weight percent of poly(pentamethylene carboximide) and about 32 to about 51 weight percent of poly(hexamethylene adipamide) based on the total weight of the composition.

6. (Original) The composition of Claim 1, wherein the electrically conductive filler is selected from the group consisting of carbon fibers, vapor grown carbon fibers, carbon nanotubes, carbon black, conductive metal fillers, conductive non-metal fillers, metal-coated fillers, and combinations comprising at least one of the foregoing electrically conductive fillers.

7. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 2 weight percent to about 40 weight percent of carbon fibers, based on the total weight of the composition.

8. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 0.05 weight percent to about 10 weight percent of vapor grown carbon fibers, based on the total weight of the composition.

9. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 0.025 weight percent to about 10 weight percent of carbon nanotubes, based on the total weight of the composition.

10. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 0.5 weight percent to about [25]20 weight percent of carbon black, based on the total weight of the composition.

11. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 1 weight percent to about 40 weight percent of a conductive metal filler, based on the total weight of the composition.

08CN07467-1

12. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about [1]0.025 weight percent to about 40 weight percent of a conductive non-metal filler, based on the total weight of the composition.

13. (Currently amended) The composition of Claim 1, wherein the electrically conductive filler comprises about 1 weight percent to about 40 weight percent of a metal-coated filler, based on the total weight of the composition.

14. (Cancelled)

15. (Cancelled)

16. (Currently amended) The composition of Claim 1, further comprising about 0.1 to about 5 weight percent of a compatibilizing agent, based on the total weight of the composition.

17. (Original) The composition of Claim 16, wherein the compatibilizing agent is selected from the group consisting of citric acid, malic acid, maleic acid, maleic anhydride, fumaric acid, and combinations comprising at least one of the foregoing compatibilizing agents.

18. (Currently amended) The composition of Claim 1, further comprising about 0.05 to 1 weight percent of pentaerythritol tetrakis(3-laurylthiopropionate), based on the total weight of the composition.

19. (Original) The composition of Claim 1, further comprising at least one additive selected from the group consisting of stabilizers, antioxidants, antiozonants, mold release agents, dyes, pigments, UV stabilizers, non-conductive fillers, viscosity modifiers, and combinations comprising at least one of the foregoing additives.

20. (Original) The composition of Claim 1, wherein the composition after molding exhibits a specific volume resistivity up to about  $10^5$  ohm-cm.

08CN07467-1

21. (Currently amended) A conductive composition comprising:

about 30 to about 45 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether copolymer;

about 30 to about 65 weight percent of a polyamide comprising nylon 6 and nylon 6,6 selected from the group consisting of poly(hexamethylene adipamide), poly(pentamethylene carboximide), and mixtures thereof, based on the total weight of the composition;

about 5 to about 20 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition;

about 0.5 to about 5 weight percent of an electrically conductive filler selected from the group comprising a conductive carbon black, vapor grown carbon fibers, and mixtures thereof, based on the total weight of the composition; and

about 0.1 to about 5 weight percent a compatibilizing agent selected from the group consisting of citric acid, maleic acid, maleic anhydride, malic acid, fumaric acid, and combinations comprising at least one of the foregoing compatibilizing agents, based on the total weight of the composition[;]

wherein the composition is free of an alkylene-alkyl meth(acrylate) copolymer and an ethylene-alpha-olefin copolymer prepared using a single site catalyst that is at least partially modified with at least one alpha, beta-unsaturated dicarboxylic acid or derivative thereof, all weight percents are based on the total weight of the composition.

22. (Cancelled)

23. (Original) The composition of Claim 21, wherein the electrically conductive filler is added to the composition as a masterbatch in the polyamide.

08CN07467-1

24. (Currently amended) The composition of Claim 21, comprising about 5 to about 15 weight percent of the poly(pentamethylene carboximide) and about 25 to about 50 weight percent of the poly(hexamethylene adipamide), based on the total weight of the composition.

25. (Currently amended) A conductive composition comprising:

about 32 to about 38 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether;

about 35 to about 40 weight percent of poly(hexamethylene adipamide), based on the total weight of the composition;

about 8 to about 12 weight percent of poly(pentamethylene carboximide), based on the total weight of the composition;

about 5 to about 10 weight percent of a styrene-(ethylene-butadiene)-styrene triblock copolymer, based on the total weight of the composition;

about 5 to about 10 weight percent of a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition;

about 1.0 to about 2.5 weight percent of a conductive carbon black, based on the total weight of the composition; and

about 0.3 to about 1.1 weight percent of citric acid, based on the total weight of the composition[;]

wherein the composition is free of an alkylene-alkyl meth(acrylate) copolymer and an ethylene-alpha-olefin copolymer prepared using a single site catalyst that is at least partially modified with at least one alpha, beta-unsaturated dicarboxylic acid or derivative thereof. all weight percents are based on the total weight of the composition.

08CN07467-1

26. (Currently amended) A conductive thermoplastic composition comprising the reaction product of:

about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units based on the total weight of the polphenylene ether copolymer;

about 30 to about 65 weight percent of a polyamide comprising nylon 6 and nylon 6,6, based on the total weight of the composition;

about 0.1 to about 5 weight percent of a compatibilizing agent, based on the total weight of the composition;

about 1 to about 30 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition; and

about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition;

wherein the composition is free of an alkylene-alkyl meth(acrylate) copolymer and an ethylene-alpha-olefin copolymer prepared using a single site catalyst that is at least partially modified with at least one alpha, beta-unsaturated dicarboxylic acid or derivative thereof. all weight percents are based on the total weight of the composition.

27. (Original) An article comprising the composition of Claim 26.

28. (Original) An automobile exterior panel comprising the composition of Claim 26.

29. (Original) A pellet comprising the composition of Claim 26.

08CN07467-1

30. (Currently amended) A method for preparing a conductive thermoplastic composition, comprising:

melt blending about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether copolymer,

about 30 to about 65 weight percent of a polyamide, based on the total weight of the composition comprising nylon 6 and nylon 6,6,

about 5 to about 20 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition,

and about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition,

and a compatibilizing agent, based on the total weight of the composition wherein all weight percents are based on the total weight of the composition.

08CN07467-1

31. (Currently amended) A conductive thermoplastic composition comprising the reaction product of:

about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether;

about 30 to about 65 weight percent of a polyamide, based on the total weight of the composition comprising nylon 6 and nylon 6,6;

about 1 to about 30 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition;

about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition; and

a product of a reaction of polyphenylene ether, polyamide and a compatibilizing agent wherein the composition is free of an alkylene-alkyl meth(acrylate) copolymer and an ethylene-alpha-olefin copolymer prepared using a single site catalyst that is at least partially modified with at least one alpha, beta-unsaturated dicarboxylic acid or derivative thereof; all weight percents are based on the total weight of the composition.

08CN07467-1

32. (Currently amended) A conductive thermoplastic composition consisting essentially of:

about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether;

about 30 to about 65 weight percent of a polyamide, based on the total weight of the composition;

about 1 to about 30 weight percent of an impact modifier comprising a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition; and

about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition;

wherein all weight percents are based on the total weight of the composition.

08CN07467-1

33. (Currently amended) A conductive thermoplastic composition consisting essentially of:

about 20 to about 60 weight percent of a polyphenylene ether copolymer comprising about 75 to about 90 weight percent of 2,6-dimethyl-1,4-phenylene ether units and about 10 to about 25 weight percent of 2,3,6-trimethyl-1,4-phenylene ether units, based on the total weight of the polyphenylene ether;

about 30 to about 65 weight percent of a polyamide, based on the total weight of the composition comprising nylon 6 and nylon 6,6;

about 1 to about 30 weight percent of an impact modifier a styrene-(ethylene-butylene)-styrene triblock copolymer and a styrene-(ethylene-propylene) diblock copolymer, based on the total weight of the composition;

about 0.025 to about 40 weight percent of an electrically conductive filler, based on the total weight of the composition; and

a product of a reaction of polyphenylene ether, polyamide and a compatibilizing agent,

~~wherein all weight percents are based on the total weight of the composition.~~

34. (New) The composition of Claim 1, wherein the polyamide comprises nylon 6, nylon 6,6, or a combination thereof.

35. (New) The composition of Claim 1, wherein the polyamide comprises nylon 6 and nylon 6,6.